

CLAIM AMENDMENTS

Before claim 1, please change ~~Claims:~~ to WHAT IS CLAIMED IS:

1 1. (Currently Amended) A process for recovery of plant
2 sterols and tocopherols from deodorization distillates formed during
3 chemical or physical refining of vegetable oils, by distillation or
4 saponification of the components present, ~~characterized in that~~
5 which comprises the steps of

6 i) removing free fatty acids ~~are removed~~ from the
7 deodorization distillate by vacuum distillation or by continuous
8 solvent saponification to obtain a material comprising sterols,
9 tocopherols, hydrocarbons, mono-, di- and triglycerides as main
10 components,

11 ii) after the removal of the free fatty acids, reacting
12 the received obtained material ~~consisting of~~ comprising sterols,
13 tocopherols, hydrocarbons, mono-, di- and triglycerides as main
14 components ~~is reacted~~ with an aromatic carboxylic acid anhydride
15 having at least 7 carbon atoms at a temperature of 50 - 150°C, under
16 reduced pressure during over 0.5 - 2 hours,

17 iii) after the treatment with anhydride, removing
18 tocopherols ~~are removed~~ from the reaction mixture of step ii) by
19 applying short-path distillation, and

20 iv) recovering crystalline free sterols ~~are recovered~~ from
21 the distillate residue containing sterol esters, di- and
22 triglycerides by transesterification.

1 2. (Currently amended) The process according to claim 1,
2 ~~characterized in that the raw material~~ wherein the deodorization
3 distillate is a deodorization distillate ~~received~~ obtained during
4 refining of sunflower, rapeseed, soybean and corn oil.

1 3. (Currently amended) The process according to claim 1i)
2 ~~characterized in that~~ wherein the free fatty acids are distilled in
3 a distillation column or in a film evaporator at a pressure of 0.1-8
4 mbar at temperatures ranging from 180 to 250°C.

1 4. (Currently amended) The process according to claim 1i)
2 wherein the free fatty acids are saponified in a medium of
3 polar/apolar solvents at 10-40°C temperature, during over 0.5-5
4 minutes in presence of a slight excess of alkali, and the free fatty
5 acids are removed by separating the polar phase.

1 5. (Currently amended) The process according to claim 1ii)
2 ~~characterized in that~~ wherein a benzoic, benzyl, phenoxyacetic,
3 phthalic, or substituted phthalic acid anhydride is applied as
4 carboxylic acid anhydride.

1 6. (Currently amended) The process according to claim
2 1ii) ~~and 5 characterized in that~~ wherein the anhydrides are applied
3 in an excess limited to 5 mol% over the amount of sterols determined
4 by gas chromatographic analysis.

1 7. (Currently amended) The process according to claim
2 1iii) ~~characterized in that~~ wherein the short path distillation of
3 tocopherols is performed at 0.01 - 0.1 bar pressure applying 200 -
4 260°C.

1 8. (Currently amended) The process according to claim
2 1iv) ~~characterized in that~~ wherein the sterols are recovered from
3 the 20-60 weight% sterol-ester containing residue of tocopherol
4 distillation, applying transesterification, ~~preferably~~ in presence
5 of sodium methyrate catalyst.

1 9. (Currently amended) The process according to claim 8
2 ~~characterized in that~~ wherein during said transesterification of
3 sterol esters, the distillation residue rich in sterol esters is
4 added continuously to ~~[[the]]~~ a refluxed sodium methyrate solution
5 and the reaction is made complete within 2-4 hours.

10. (Canceled)